

sub c'

1. An apparatus for installing a plurality of communication cables in a wall, the wall comprising at least one sheet of wall board having a mounting hole formed therein and each communication cable being terminated in a connector,
- 5 the apparatus comprising:

mounting means for providing a mounting location at the mounting hole formed in the wall board, the mounting means being located in a first plane substantially parallel to the wall board;

- 10 capturing means for capturing and holding each of the connectors terminating the communications cables in a second plane such that the connectors held therein are directed away from the first plane;

- 15 covering means for concealing the capturing means and the mounting means, the covering means comprising a first side, a second side, and a plurality of apertures, each of the apertures positioned to closely receive, from its second side, one connector held by the capturing means; and

- 20 means for securing the capturing means and the covering means to the mounting means such that the connectors are held in a corresponding aperture in the covering means and are positioned to allow a cable to be attached to and removed from the connectors.

2. An apparatus for installing a plurality of communication cables in a wall as defined in claim 1 wherein the mounting means comprises:

5 a frame having an open center;

a plurality of formable members, each of the formable members being adapted to bend around the wall board and exert pressure on a second side of the wall board; and

10 means for exerting pressure on a first side of the wall board to prevent the frame from passing through hole in the wall board.

3. An apparatus for installing a plurality of
15 communication cables in a wall as defined in claim 1 wherein the capturing means comprises a first portion of a planar member having a plurality of rectangular openings formed therein, and wherein the means for securing comprises a bore formed in a second portion of the planar member, the first
20 portion of the planar member being offset from the second portion of the planar member.

4. An apparatus for installing a plurality of communication cables in a wall as defined in claim 1 wherein the covering means comprises:

a planar member;

5 a first aperture formed in the planar member, the first aperture having a size and a shape to accommodate access to a wiring device therethrough;

10 a second aperture formed in the planar member, the second aperture having a size and a shape to accommodate one of the connectors projecting therein;

a third aperture formed in the planar member, the third aperture having a shape and a size to accommodate another one of the connectors projecting therein; and

15 wherein the means for securing comprises a pair of bores formed in the planar member.

5. An apparatus for installing a plurality of communication cables in a wall as defined in claim 1 further comprising a template, the template providing a guide when
20 cutting the hole in the wall.

6. A method for installing a plurality of communication cables in a wall adjacent to an electrical box attached to a building member, each communication cable being terminated in a connector, the method comprising the steps of:

5 releasably attaching the communications cables to a point so that at least the connectors are positioned some distance from the location the communication cables are to be installed in the wall;

10 positioning a template in relation to the electrical box, the template guiding the cutting of a hole in a sheet of wall board at which to install the communication cables;

cutting a hole in the sheet of wall board in accordance with the template;

15 retrieving the communication cables through the hole in the sheet of wall board;

attaching a mounting frame in the hole adjacent to the electrical box;

20 attaching the connectors to a capture plate such that the connectors project through the capture plate;

securing the capture plate to the mounting frame;

positioning a cover plate over the mounting frame and the capture plate, the cover plate having a plurality of apertures formed therein, at least one of the

comprises the step of attaching the template to the electrical box.

10. A method for installing a plurality of communication
5 cables in a wall as defined in claim 6 further comprising the
step of painting the wall board before retrieving the
communication cables through the hole in the sheet of wall
board.

THE UNIVERSITY OF CHICAGO

connection with the connector receiver portion such that any telephone signal which is presented on one twisted pair connectors appears on the remainder of the twisted pair connectors.

5

12. An apparatus for adapting a multi-line telephone signal distribution hub for use with one or more telephone line as defined in claim 11 wherein the plurality of twisted pair connectors comprise a plurality of RJ-xx series jacks and wherein the multi-line telephone connector comprises a fifty position receptacle connector.

13. An apparatus for adapting a multi-line telephone signal distribution hub for use with one or more telephone line as defined in claim 12 wherein the first means for making physical and electrical contact with the first set of plug conductors comprises a first portion of a fifty position plug connector.

14. An apparatus for adapting a multi-line telephone signal distribution hub for use with one or more telephone line as defined in claim 13 wherein the second means for making physical and electrical contact with the first set of

plug conductors comprises a second portion of the fifty
position plug connector.

A

04040060

15-19
381/81
Rud

15. A system for distributing audio signals from a central location to a plurality of discrete zones contained within a structure, the system comprising:

5 first means for presenting a first line level audio signal at the central location from a first program source, the first means for presenting being accessible from a first direction;

10 second means for presenting a second line level audio signal at the central location from a second program source, the second means for presenting being accessible from the first direction;

15 third means for presenting a third line level audio signal at the central location from a third program source, the third means for presenting being accessible from the first direction;

20 first means for increasing gain of the first line level audio signal and generating a first amplified audio signal, the first means for increasing gain comprising an input, an output, and a gain control all of which are accessible from the first direction;

second means for increasing gain of the second line level audio signal and generating a second amplified audio signal, the second means for increasing gain

comprising an input, an output, and a gain control all of which are accessible from the first direction;

third means for increasing gain of the third line level audio signal and generating a third amplified audio signal, the third means for increasing gain comprising an input, an output, and a gain control all of which are accessible from the first direction and the first, second, and third means for increasing gain being positioned at the central location;

first means for selectively dispatching any one of the first, second, or third amplified audio signals to a first zone in the structure, the first means for selectively dispatching comprising at least one connector which is accessible from the first direction;

a first visually perceptible zone indication adjacent to the first means for selectively dispatching;

second means for selectively dispatching any one of the first, second, or third amplified audio signals to a second zone in the structure, the second means for selectively dispatching comprising at least one connector which is accessible from the first direction;

a second visually perceptible zone indication adjacent to the second means for selectively dispatching;

third means for selectively dispatching any one of the first, second, or third amplified audio signals to a third zone in the structure, the third means for selectively dispatching comprising at least one connector which is accessible from the first direction;

a third visually perceptible zone indication adjacent to the third means for selectively dispatching;

fourth means for selectively dispatching any one of the first, second, or third amplified audio signals to a fourth zone in the structure, the fourth means for selectively dispatching comprising at least one connector which is accessible from the first direction, the first, second, third and fourth means for selectively dispatching all being positioned adjacent one another at the central location; and

a fourth visually perceptible zone indication adjacent to the fourth means for selectively dispatching such that any one of the first, second or third amplified audio signals can be readily directed to any one of the plurality of zones.

16. A system for distributing audio signals from a central location to a plurality of discrete zones contained within a structure as defined in claim 15 wherein the first,

second, and third means for presenting a line level audio signals each comprise a phono jack.

17. A system for distributing audio signals from a central location to a plurality of discrete zones contained within a structure as defined in claim 15 wherein the first program source comprises a tuner, wherein the second program source comprises a compact disc player, and wherein the third program source comprises an audio cassette deck.

18. A system for distributing audio signals from a central location to a plurality of discrete zones contained within a structure as defined in claim 15 wherein the each of the first, second, third, and fourth means for selectively dispatching comprises a pair of banana jacks and a banana jack patch cord.

19. A system for distributing audio signals from a central location to a plurality of discrete zones contained within a structure as defined in claim 15 wherein the each of the first, second, and third amplified audio signals each comprise a first and a second channel.

040400050

a third visually perceptible speaker location indication adjacent to the third connector on the first side of the panel;

5 means for coupling any signal present at the third connector to the third speaker connection location;

a fourth connector accessible from the first side of the panel;

10 a fourth visually perceptible speaker location indication adjacent to the fourth connector on the first side of the panel;

means for coupling any signal present at the fourth connector to the fourth speaker connection location;

cover means for covering the panel, the cover means having an opened position and a closed position; and

15 access means for allowing cables connected to any of the first, second, third, or fourth connectors to reach audio/visual equipment positioned in the room when the cover is in its closed position such that signals may be conveyed from the audio/visual equipment to the first,
20 second, third, or fourth speaker locations within the room.

21. A system for distributing electronic signals within a room equipped for audio and video presentations as defined

in claim 20 wherein the first, second, third, and fourth means for conveying each comprise wiring located in the wall of the room.

5 22. A system for distributing electronic signals within a room equipped for audio and video presentations as defined in claim 20 wherein the cover means further comprises means for locking the cover in its closed position.

10 23. A system for distributing electronic signals within a room equipped for audio and video presentations as defined in claim 20 further comprising:
 a coaxial cable connector; and
 a twisted pair cable connector.

15 24. A system for distributing electronic signals within a room equipped for audio and video presentations as defined in claim 20 further comprising:
 a fifth connector accessible from the first side of
20 the panel;
 a fifth visually perceptible speaker location indication adjacent to the fifth connector on the first side of the panel;

means for coupling any signal present at the fifth connector to a fifth speaker connection location;

a sixth connector accessible from the first side of the panel;

5 a sixth visually perceptible speaker location indication adjacent to the sixth connector on the first side of the panel; and

means for coupling any signal present at the sixth connector to a sixth speaker connection location.

Handwritten signature: Hall B.2

04040060